ABSTRACT

~~The present invention relates to a ladder type bulk acoustic wave filter with a common ground inductor, which obtains high attenuation in a high frequency stop band adjacent to a pass band without the insertion loss degradation of the pass band, so that the ladder type bulk acoustic wave filter is useful as a transmit filter. According to the present invention, the plurality of shunt resonators are commonly grounded through the inductor, so that zeros are generated due to the interaction between the stray capacitance of shunt resonators and the common ground inductor, thus improving attenuation characteristics in a high frequency stop band.~~

A ladder-type bulk acoustic wave filter includes an input terminal, an output terminal, a ground terminal, a plurality of series resonators connected in series between the input terminal and the output terminal, a plurality of shunt resonators, and a common ground inductor. Each shunt resonator has a first end and a second end. Each of the first ends of the shunt resonators is connected to a contact point of the series resonators. The second ends of the shunt resonators are commonly connected to a common terminal. The common ground inductor connects the common terminal of the shunt resonators to the ground terminal.